



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/049,649 | 02/25/2002 | Takuro Kohyama | 020237 | 7487 |

23850 7590 03/08/2004

ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP
1725 K STREET, NW
SUITE 1000
WASHINGTON, DC 20006

| |
|----------|
| EXAMINER |
|----------|

TUPPER, ROBERT S

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2652

DATE MAILED: 03/08/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/049,649

Applicant(s)

KOHYAMA ET AL.

Examiner

Robert S Tupper

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 10 is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, and 11-14 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/25/02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2652

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 8, and 11-14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by JP 4-276352.

Note especially figures 1 and 4. JP 4-276352 shows a disk drive with a frame (27), a slider (14), and a holder (4). There are vertical and horizontal guide mechanisms including grooves and projections on the sidewalls of the slider and frame. Projection (21) on the slider is the engaging piece, and slot (21) on the frame is the engaging hole.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over HASEGAWA et al (4,878,139).

Note figure 2. HASEGAWA et al shows a disk drive with a frame (26), a slider (32), and a holder (20). There are vertical and horizontal guide mechanisms on the frame and slider. The horizontal guide mechanism includes engaging piece (36) on the

Art Unit: 2652

slider and engaging hole (31) on the frame. The vertical guide mechanism includes pins (29a) on the frame and slots (35b) on the slider. The circumferential edge of the engaging hole are the plurality of parts. There is an eject button (54).

HASEGAWA et al differs in not having sidewalls on the frame.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide sidewalls on the frame. The motivation is as follows: upstanding edges are commonly used to increase the rigidity of a plate. Note that claim 1 does not require the vertical guide mechanism to be located between the sidewalls of the frame and slider, or recite any operational significance for the sidewall on the frame.

5. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

Concerning claim 7, the prior art does not teach or suggest a disk drive having a frame with sidewalls, slider with sidewalls, a disk carrier supported by the slider for vertical movement, a horizontal guide mechanism for slidably guiding the horizontal movement of the slider on the frame, and a vertical guide mechanism for guiding the vertical movement of the carrier, where the horizontal guide mechanism includes an engaging piece on the slider and an engaging hole on the frame, the slider being a

Art Unit: 2652

metallic sheet material and the engaging piece being a bent part of that sheet material, and where there is an urging member for urging the slider and the frame has an urging member retainer and where the urging retainer and engaging hole are parts of a common opening formed in a common cutting up.

Concerning claim 9, the prior art does not teach or suggest a disk drive having a frame with sidewalls, slider with sidewalls, a disk carrier supported by the slider for vertical movement, a horizontal guide mechanism for slidably guiding the horizontal movement of the slider on the frame, and a vertical guide mechanism for guiding the vertical movement of the carrier, where the horizontal guide mechanism includes an engaging piece on the slider and an engaging hole on the bottom surface of the frame, and the frame has a positioning part for positioning the disk and the positioning part is formed in a cutting up and where the engaging hole is part of the opening formed when forming the positioning part.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert S Tupper whose telephone number is 703-308-1601. The examiner can normally be reached on Mon - Fri, 6:00 AM - 3:30 PM (first Fri off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 703-305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2652

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert S Tupper
Primary Examiner
Art Unit 2652

rst